



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/689,559

10/20/2003

Gerald R. Malan

A0781-701810

8394

37462

7590

05/04/2007

LOWRIE, LANDO & ANASTASI

RIVERFRONT OFFICE

ONE MAIN STREET, ELEVENTH FLOOR

CAMBRIDGE, MA 02142

EXAMINER

GOODCHILD, WILLIAM J

ART UNIT

PAPER NUMBER

2109

MAIL DATE

DELIVERY MODE

05/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/689,559	MALAN ET AL.	
	Examiner	Art Unit	
	William J. Goodchild	2109	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>03/07/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because:

Figure 5 shows item 102, the specification (page 12, line 12) refers to an item 502 as a "Passive Discover".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

Page 16, line 19, the specification refers to item 512, Figure 9 does not have an item 512.

Page 16, line 30, the specification refers to item 408, Figure 9 does not have an item 408.

Appropriate correction is required.

Claim Objections

1. Claims 12 and 17-18 are objected to because of the following informalities:

Claim 12, line 2, the phrase "a nameserver" has been defined in claim 11, line 6, it is suggested to change the phrase to --the nameserver--, in order to improve the clarity of the claim language.

Claim 17, line 2, the phrase "a network node" has been defined in claim 16, line 4, it is suggested to change the phrase to --the network node--, in order to improve the clarity of the claim language.

Claim 18, line 2, the phrase "a network node" has been defined in claim 16, line 4, it is suggested to change the phrase to --the network node--, in order to improve the clarity of the claim language.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Independent claim 1 is drawn towards a method comprising; determining a first and second mapping and comparing the first and second mappings. In order for a method claim to be statutory, it must result in useful, concrete, and tangible results. In this instance there is no result of the method claimed; determining a first and second mapping and comparing the first and second mappings does not result in any real world change as it does not create a tangible result specifying what is done with the discrepancy, such as stored in a log file on a computer system or provided as output to a user on a computer terminal.

Claims 2-15, which are dependent on claim 1, do not add any tangible results to the claim and thus are rejected for the same reason.

Independent claim 16 is drawn towards a method comprising; determining whether a network node is a nameserver. In order for a method claim to be statutory, it must result in useful, concrete, and tangible results. In this instance there is no result of the method claimed; determining whether a network node is a nameserver does not result in any real world change as it does not create a tangible result specifying what is

Art Unit: 2109

done with or the use of determining whether a network node is a nameserver, such as stored in a log file on a computer system or provided as output to a user on a computer terminal.

Claims 17-18, which are dependent on claim 16, do not add any tangible results to the claim and thus are rejected for the same reason.

Independent claim 19 is drawn towards a method comprising; adding a nameserver to a list of nameserver's. In order for a method claim to be statutory, it must result in useful, concrete, and tangible results. In this instance there is no result of the method claimed; adding a nameserver to a list of nameserver's does not result in any real world change as it does not create a tangible result specifying what is done by adding a nameserver to a list of nameserver's, such as stored in a log file on a computer system or provided as output to a user on a computer terminal.

Claim 20, which is dependent on claim 19, does not add any tangible results to the claim and thus is rejected for the same reason.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2109

5. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by DNS and BIND by Paul Albitz and Cricket Liu, O'Reilly & Associates, Inc. Copyright 1992.

In reference to claim 1, DNS and BIND teaches a method comprising:
determining a first mapping, (page 211, from nslookup routine, 'slate.mines.Colorado.edu.' provides a first mapping, from paragraph 1, this is an authoritative lookup);

determining a second mapping, (page 211, from nslookup routine, the second time you lookup up the hostname, the response is returned, see second entry of 'slate.mines.Colorado.edu.', listed as a Non-authoritative answer); and

comparing the first mapping to the second mapping and identifying at least one discrepancy between the first and second mapping, (page 211, paragraph 1, the nslookup example shows the output of the commands for comparison, this is a manual comparison. nslookup is used as a troubleshooting / debugging tool, page 203, 1st paragraph, lines 1-2, "To be proficient at troubleshooting name server problems, you'll need a special tool to make DNS queries, one that gives you complete control.", page 204, 2nd paragraph, lines 9-15, "But, you want your troubleshooting tool to talk only with one name server because you can force that name server to look up whatever you want. You can even make that name server print out debugging information while you have it under the spotlight.").

In reference to claim 2, DNS and BIND teaches the method of claim 1 wherein:

the act of determining a second mapping comprises acts of querying a nameserver and receiving a response from the nameserver, the response containing the second mapping, (page 211, from nslookup routine, the second time you lookup up the hostname, the response is returned, see second entry of 'slate.mines.Colorado.edu.', listed as a Non-authoritative answer).

In reference to claim 3, DNS and BIND teaches the method of claim 1 wherein:
the act of determining a first mapping comprises an act of obtaining an authoritative mapping from an authoritative source, (page 211, from nslookup routine, 'slate.mines.Colorado.edu.' provides a first mapping, from paragraph 1, this is an authoritative lookup).

In reference to claim 4, DNS and BIND teaches the method of claim 3 wherein:
the authoritative source is at least one of: an authoritative nameserver, (page 211, from nslookup routine, 'slate.mines.Colorado.edu.' provides a first mapping, from paragraph 1, this is an authoritative lookup); and

a database storing a plurality of authoritative mappings, (page 28, Data Fields, The files that primary master name servers load their zone data from are called data files. Referred to as db files, short for database files).

In reference to claim 5, DNS and BIND teaches the method of claim 1 wherein:
an act of reporting the at least one discrepancy to a user, (page 211, paragraph 1, the nslookup example shows the output of the commands for comparison).

Art Unit: 2109

In reference to claim 6, DNS and BIND teaches the method of claim 1 wherein:
the first mapping is a first namespace mapping that maps a first name to a first resource, (page 211, from nslookup routine, 'slate.mines.Colorado.edu.' provides a first mapping, from paragraph 1, this is an authoritative lookup) and
the second mapping is a second namespace mapping that maps a second name to a second resource, (page 211, from nslookup routine, the second time you lookup up the hostname, the response is returned, see second entry of 'slate.mines.Colorado.edu.', listed as a Non-authoritative answer).

In reference to claim 7, DNS and BIND teaches the method of claim 6 wherein:
the first namespace mapping is stored on an authoritative nameserver, (page 28, Data Fields, The files that primary master name servers load their zone data from are called data files. Referred to as db files, short for database files) and
the act of determining a first mapping comprises an act of obtaining the first mapping from the authoritative nameserver, (page 211, from nslookup routine, 'slate.mines.Colorado.edu.' provides a first mapping, from paragraph 1, this is an authoritative lookup).

In reference to claim 8, DNS and BIND teaches the method of claim 6 wherein:
the act of determining a second mapping comprises acts of querying a nameserver, (page 211, from nslookup routine, running the second lookup, see second entry of 'slate.mines.Colorado.edu.', listed as a Non-authoritative answer) and

Art Unit: 2109

receiving a response from the nameserver, (page 211, from nslookup routine, the second time you lookup up the hostname, the response is returned, see second entry of 'slate.mines.Colorado.edu.', listed as a Non-authoritative answer, showing Name: and Address:),

the response containing the second mapping, (page 211, from nslookup routine, the second time you lookup up the hostname, the response is returned, see second entry of 'slate.mines.Colorado.edu.', listed as a Non-authoritative answer).

In reference to claim 9, DNS and BIND teaches the method of claim 2 wherein:
an act of compiling a list of nameservers to be queried, (page 220, Zone Transfers, 1st paragraph, 'nslookup can be used to transfer a whole zone using the ls command', page 221, line 26, '> ls -t any movie.edu > /tmp/movie - List all data into /tmp/movie', from the list starting on line 29, you can see the mapping resolution from hostnames to ip address and the type of server, i.e. 'NS' identifies a nameserver, 'MX' identifies a mailserver, as per page 220, Zone Transfers, paragraph 3, lines 2-3, 'By default, you only see address and name server data', so, without the options in the above example, your output would be limited to nameservers only).

In reference to claim 10, DNS and BIND teaches the method of claim 8 wherein:
the act of querying a nameserver comprises an act of requesting at least one namespace mapping record from the nameserver, (page 211, from nslookup routine, the second time you lookup up the hostname, the response is returned, see second

Art Unit: 2109

entry of 'slate.mines.Colorado.edu.', listed as a Non-authoritative answer, showing Name: and Address:).

In reference to claim 11, DNS and BIND teaches the method of claim 9 wherein:
the act of compiling a list of at least one nameserver comprises acts of:

sending a namespace mapping resolution query to a plurality of network nodes, (page 220, Zone Transfers, 1st paragraph, 'nslookup can be used to transfer a whole zone using the ls command', page 221, line 26, '> ls -t any movie.edu > /tmp/movie - List all data into /tmp/movie', from the list starting on line 29, you can see the mapping resolution from hostnames to ip address and the type of server, i.e. 'NS' identifies a nameserver, 'MX' identifies a mailserver);

waiting for one or more responses from the plurality of network nodes, (page 220, Zone Transfers, 1st paragraph, 'nslookup can be used to transfer a whole zone using the ls command', page 221, line 26, '> ls -t any movie.edu > /tmp/movie - List all data into /tmp/movie', after typing in the request, the response will print out on screen or to a file as requested in this example, from the list starting on line 29, you can see the mapping resolution from hostnames to ip address and the type of server, i.e. 'NS' identifies a nameserver, 'MX' identifies a mailserver); and

determining whether a network node in the plurality of network nodes is a nameserver, (page 220, Zone Transfers, 1st paragraph, 'nslookup can be used to transfer a whole zone using the ls command', page 221, line 26, '> ls -t any movie.edu > /tmp/movie - List all data into /tmp/movie', from the list starting on line 29, you can

Art Unit: 2109

see the mapping resolution from hostnames to ip address and the type of server, i.e.

'NS' identifies a nameserver, 'MX' identifies a mailserver).

In reference to claim 12, DNS and BIND teaches the method of claim 11 wherein:

the act of determining comprises an act of determining whether the network node in the plurality of network nodes is a nameserver based on a format of one or more responses received from the network node, (page 220, Zone Transfers, 1st paragraph, 'nslookup can be used to transfer a whole zone using the ls command', page 221, line 26, '> ls -t any movie.edu > /tmp/movie – List all data into /tmp/movie', from the list starting on line 29, you can see the mapping resolution from hostnames to ip address and the type of server, i.e. 'NS' identifies a nameserver, 'MX' identifies a mailserver).

In reference to claim 13, DNS and BIND teaches the method of claim 11 wherein:

the act of determining comprises an act of determining that a network node in the plurality of nodes is not a nameserver if the network node does not respond to the namespace mapping resolution query, (page 220, Zone Transfers, 1st paragraph, 'nslookup can be used to transfer a whole zone using the ls command', page 221, line 26, '> ls -t any movie.edu > /tmp/movie – List all data into /tmp/movie', from the list starting on line 29, you can see the mapping resolution from hostnames to ip address and the type of server, i.e. 'NS' identifies a nameserver, 'MX' identifies a mailserver).

In reference to claim 14, DNS and BIND teaches the method of claim 9 wherein:

Art Unit: 2109

the act of compiling a list of at least one nameserver comprises an act of:

listening for a request from a non-authoritative nameserver to an authoritative nameserver, (page 217, paragraph 4, lines 1-4, 'When a BIND name server gets a query, it looks for the answer in its cache. If it doesn't have the answer, and it is authoritative for the domain, the name server responds that the name doesn't exist or that there is no data for that type.', paragraph 5, lines 4-6, 'When the name server receives a response from one of the remote name servers, it caches the response'); and when the request is detected, adding the non-authoritative nameserver to a list of nameservers, (page 217, paragraph 5, lines 4-6, 'When the name server receives a response from one of the remote name servers, it caches the response', caching the response is adding the nameserver to a list of nameservers to use in the future).

In reference to claim 15, DNS and BIND teaches the method of claim 14 wherein: the request is a resolve request, (page 211, from nslookup routine, 'slate.mines.Colorado.edu.' provides a first mapping, from paragraph 1, this is an authoritative lookup).

In reference to claim 16, DNS and BIND teaches a method comprising: sending a namespace mapping resolution query to a plurality of network nodes, (page 220, Zone Transfers, 1st paragraph, 'nslookup can be used to transfer a whole zone using the ls command', page 221, line 26, '> ls -t any movie.edu > /tmp/movie - List all data into /tmp/movie', from the list starting on line 29, you can see the mapping

Art Unit: 2109

resolution from hostnames to ip address and the type of server, i.e. 'NS' identifies a nameserver, 'MX' identifies a mailserver);

waiting for one or more responses from the plurality of network nodes, (page 220, Zone Transfers, 1st paragraph, 'nslookup can be used to transfer a whole zone using the ls command', page 221, line 26, '> ls -t any movie.edu > /tmp/movie - List all data into /tmp/movie', after typing in the request, the response will print out on screen or to a file as requested in this example, from the list starting on line 29, you can see the mapping resolution from hostnames to ip address and the type of server, i.e. 'NS' identifies a nameserver, 'MX' identifies a mailserver); and

determining whether a network node in the plurality of network nodes is a nameserver, (page 220, Zone Transfers, 1st paragraph, 'nslookup can be used to transfer a whole zone using the ls command', page 221, line 26, '> ls -t any movie.edu > /tmp/movie - List all data into /tmp/movie', from the list starting on line 29, you can see the mapping resolution from hostnames to ip address and the type of server, i.e. 'NS' identifies a nameserver, 'MX' identifies a mailserver).

In reference to claim 17, DNS and BIND teaches the method of claim 16 wherein:
the act of determining comprises an act of determining whether the network node in the plurality of network nodes is a nameserver based on a format of one or more responses received from the network node, (page 220, Zone Transfers, 1st paragraph, 'nslookup can be used to transfer a whole zone using the ls command', page 221, line 26, '> ls -t any movie.edu > /tmp/movie - List all data into /tmp/movie', from the list

Art Unit: 2109

starting on line 29, you can see the mapping resolution from hostnames to ip address and the type of server, i.e. 'NS' identifies a nameserver, 'MX' identifies a mailserver).

In reference to claim 18, DNS and BIND teaches the method of claim 16 wherein:
the act of determining comprises an act of determining that a network node in the plurality of nodes is not a nameserver if the network node does not respond to the namespace mapping resolution query, (page 220, Zone Transfers, 1st paragraph, 'nslookup can be used to transfer a whole zone using the ls command', page 221, line 26, '> ls -t any movie.edu > /tmp/movie - List all data into /tmp/movie', from the list starting on line 29, you can see the mapping resolution from hostnames to ip address and the type of server, i.e. 'NS' identifies a nameserver, 'MX' identifies a mailserver).

In reference to claim 19, DNS and BIND teaches a method comprising:
listening for a request from a non-authoritative nameserver to an authoritative nameserver, (page 217, paragraph 5, lines 4-6, When the name server receives a response from one of the remote name servers, it caches the response); and
when the request is detected, adding the non-authoritative nameserver to a list of nameservers, (page 217, paragraph 5, lines 4-6, When the name server receives a response from one of the remote name servers, it caches the response).

In reference to claim 20, DNS and BIND teaches the method of claim 19 wherein:

Art Unit: 2109

the request is a resolve request, (page 211, from nslookup routine, 'slate.mines.Colorado.edu.' provides a first mapping, from paragraph 1, this is an authoritative lookup).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Goodchild whose telephone number is (571) 270-1589. The examiner can normally be reached on Monday - Friday / 8:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules can be reached on (571) 272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/689,559

Page 16

Art Unit: 2109

William J Goodchild

Examiner

Art Unit 2109

WJG

04/27/2007

FRANTZ JULES
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read 'Frantz Jules', with a large, stylized flourish extending from the end of the name.